

Grape

Grow

Grapes are fruits which grow on woody vines. Generally, grapes are planted in rows. Space grape plants 6-8 feet apart. Use trellises to support the growth of the grape vines. For at least the first two years, keep an area 1-2 feet in diameter at the base of the vine free of weeds by hoeing, hand cultivating or mulching. Grapes require considerable pruning and training. They can grow in almost any type of climate.¹

Fun Fact: *Vitis labrusca*, *V. aestivalis* and *V. rotundifolia* are species of grapes native to North America.

Two basic types of grapes, American and European, exist. Both are grown in the United States. American grapes can be called slip-skin because the skin easily separates from the inside flesh of the grape. American and European grapes can be seeded or seedless. Almost 99% of the commercially produced table grapes in the U.S. are grown in California. European wine grapes are mostly grown in California. Concord grapes are predominantly grown in Washington, New York, Michigan, Pennsylvania, and Ohio. Common grapes grown in North Carolina are wine, bunch or Muscadine. European (*V. vinifera*) grapes are the main variety used for making wine.¹⁻⁴

Fun Fact: The first grape varieties date back to 6000 B.C. Commercial grape production dates back to 1000 B.C.³

Choose

Did you know grapes are not just green? They come in blue-black, red and green. Popular varieties of blue-black seedless include Autumn Royal, Fantasy and Marroo, green seedless include Perlette, Thompson and Superior, and red seedless include Flame and Ruby. Blue-black grapes should have a rich, dark color. Blue-blacks are harvested June-January, greens May-December and reds June-December. Greens should be green with yellow tint. Reds should be primarily red. Grapes should be plump, not wrinkled and firmly attached to a green, flexible stem. When grapes fall off the stem, they are overripe.^{3,5-6}



Store

Store grapes in the refrigerator (32-36°F, 90-98% relative humidity). Grapes can keep up to 1-2 weeks when stored and handled properly. Stack or store to avoid squashing the grapes and also allow for air circulation. Store away from strong-smelling, ethylene-producing items such as broccoli, cabbage and onions. Before storing, discard any mushy or moldy grapes. Do not wash before storing.^{5,6}

Fun Fact: A bloom is not just a flower. Bloom is a white, powdery substance that naturally occurs on grapes. It protects grapes from losing moisture and decaying.³

Use

Grapes can be purchased fresh, frozen, or dried as raisins. Also, grapes are made into juice, jam, jelly and preserves.

Do not wash grapes until ready to use. When ready to use, wash gently. Pat dry with a single use paper towel. Grapes freeze well. Lay them out in a single layer on a flat pan or baking sheet and place them in the freezer. Once frozen, put them in a freezer safe container or a plastic resealable bag. Grapes are a fun, quick snack. You can pair them with cheese and crackers. They also can be served as a side dish to a meal. Grapes can be sautéed, roasted, grilled or pickled. Grapes can be put on kabobs or added to salads with other fruit, vegetables, chicken or turkey, pasta or other grains. Be creative and enjoy!^{2-3,5-6}

Grape

Teach

Gold Rush or Grape Rush?

Prospectors rushed to California in the 1800s looking for gold. Kentucky native William Wolfskill found grapes and planted the first table grape vineyard in California. Now, over 800,000 acres across California are planted with vineyards.

Grapes have a place in history and culture. One of the most popular Chinese tongue twisters (chi putao bu tu putao pi) means “When you eat grapes, don’t spit out the skin”. Many health benefits are linked to the grape skin. It is a Spanish tradition to eat twelve grapes with each bell strike at midnight of January 1.³

Great Grapes

Class Activity

- Have students research the origin and history of grapes and their significance and use in different cultures.
- Then, students can share the results of their research and their own experience with grapes.

Fun Fact: Three products came together during World War II to create the peanut butter and jelly sandwich—pre-sliced bread, grape jelly and peanut butter.³

Grapes of Math

Class Activity

Materials Needed:

- Different varieties (blue-black, green and red) of grapes washed and prepared for examination
- Small plastic resealable bag of washed grapes of each variety (blue-black, green and red) for each student
- Graph paper

Steps:

1. Have students examine the different varieties of grapes and write a paragraph description.
2. Distribute a sample bag of each variety of grape to every student. Ask students to sample each variety of grape and vote on their preferences. Graph the results.
3. Students can also write a poem or song about grapes. They can share it with the class.

Eat

Grapes are great!

A cup of fresh red or green grapes has about 104 calories, 288 mg of potassium and 100 IU of vitamin A. They are free of cholesterol and low in fat and sodium.

Potassium helps regulate fluid and mineral balance in the body, maintain normal blood pressure, transmit nerve signals and contract muscles. Vitamin A promotes normal vision, supports the growth and health of cells and tissue, protects us from infection, and helps regulate the immune system.

Based on color, grapes offer a variety of phytochemicals—flavonoids, phenols, carotenoids, etc. Phytochemicals act as antioxidants preventing and/or repairing cell damage. Anthocyanidins, a flavonoid sub-group, contribute to the blue, red and purple pigments of fruits. Anthocyanidins may help with maintaining brain and healthy immune function. The anthocyanidins along with quercetin and the ellagic acid in red grapes can help neutralize free radicals that may damage cells and boost antioxidant defenses in cells. Red grapes also contain resveratrol, which may help maintain heart health. The carotenoid lutein may help maintain healthy vision.^{2-3,5-8}

Fun Fact: Popular N.C. Muscadine cultivars are Carlos, Doreen, Magnolia, Nesbitt, Noble, Regale, and Triumph. All of these cultivars are perfectly flowered (having male and female parts) so a single vine will be fruitful.¹

Find

For more grape facts and resources, visit:

1. North Carolina State Extension, <http://rubus.ces.ncsu.edu>
2. Concord Grape Association, <http://concordgrape.org>
3. California table Grape Commission, www.grapesfromcalifornia.com
4. N.C. Muscadine Grape Association, <https://www.northcarolinamuscadine.org>
5. U.S. Department of Agriculture, Food and Nutrition Service, www.fns.usda.gov
6. Fruits & Veggies More Matters®, www.fruitsveggiesmorematters.org
7. USDA Food Composition Databases, <http://ndb.nal.usda.gov>
8. Academy of Nutrition Dietetics, www.eatright.org